

DOCUMENT RESUME

ED 044 167

PS 003 280

AUTHOR Kagan, Jerome
TITLE On Class Differences and Early Development.
SPONS AGENCY Carnegie Corp. of New York, N.Y.; National Inst. of Child Health and Human Development (NIH), Bethesda, Md.
PUB DATE 28 Dec 69
NOTE 26p.; Expanded version of address presented at the meeting of the American Association for the Advancement of Science, Boston, Massachusetts, Dec. 28, 1969
EDRS PRICE EDRS Price MF-\$0.25 HC-\$1.40
DESCRIPTORS *Change Agents, *Child Development, Cognitive Development, Cross Sectional Studies, *Early Experience, Language Skills, Longitudinal Studies, Lower Class, Middle Class, Parent Child Relationship, *Parent Role, Self Concept, *Social Differences

ABSTRACT

There are seven major sets of differences between young children of different economic backgrounds. The middle class child, compared to the lower class child, generally exhibits: (1) better language comprehension and expression, (2) richer schema development, involving mental preparation for the unusual, (3) stronger attachment to the mother, making him more receptive to adoption of her values and prohibitions, (4) less impulsive action, (5) a better sense of his potential effectiveness, (6) more motivation for school defined tasks, and (7) greater expectation of success at intellectual problems. Data from two studies are offered in support of some of these hypotheses. One, a longitudinal study of 140 white, middle and lower class involved observations of their reactions at 4, 8, 13, and 27 months of age to masks with scrambled facial features. The other, a cross sectional study of 60 white, 10-month-old middle and lower class infants involved home observations of mother and child behaviors and laboratory observations of children's reactions to meaningful and non-meaningful speech, and to mothers' and strangers' voices. To bring about improved developmental patterns, it is important that lower class mothers be shown how they can become effective change agents in their children's lives. (NH)

ON CLASS DIFFERENCES AND EARLY DEVELOPMENT¹

Jerome Kagan

Harvard University

One of the most serious problems facing this nation is the fact that children of poor families generally do not perform as well in school as children from more privileged families. Previous generations were not very distressed by this fact since school attendance and academic progress were not regarded, until recently, as necessary for economic survival in the society. The primary function of the school in earlier generations was character education and the preparation of a priest class, in both the literal and figurative sense of the word. Education, during the last 300 years, has been largely a ritual to preserve distinction among social classes and to lend some mystique to those who successfully withstood its rigors. Although the American view of public school has always been more practical than that of the European, Americans never seriously questioned the premise that school success was not absolutely necessary for adaptation to the community. A formal education was only required if the person wished to assume a role of power or leadership in the society.

Presented at AAAS meeting in Boston, Mass.

on December 28, 1969.

This plan has worked well. A person who persists for sixteen to twenty years in the educational system with acceptable levels of performance and no sins on his record is a bit more likely to possess a sense of responsibility, perspective on human affairs, ability to delay gratification, and a capacity for leadership than one who never began the arduous journey or one who withdrew before it was over. Since the system worked efficiently, society was not overly concerned with school failures. Early failures indicated how sensitive the system was in eliminating those who were not of the proper temperament or ability to care or take responsibility for their fellow man. We live today in a different time, the first time in the history of man that a minimum of twelve years of formal education has become necessary for economic survival. Hence, many citizens have become justifiably concerned with the school failures that were ignored in the past. We now realize that these failures are the basis of serious psychological disruption in the entire community, for the rate of failure among children from poor families is too high.

The poor child's slower progress in mastery of school tasks is probably a function of many factors, the most salient of which are weaker motivation and expectancy of failure which lead, in turn, to fragmented attention

and a reluctance to persist with difficult problems. It should be made clear in the beginning of this talk that learning to read, add, and write compositions are not to be regarded as the most sanctified set of childhood competences. They just happen to be among the dominant values of Western culture, values which are not likely to change in the immediate future. Since a society cannot afford to have a large segment of its population deficient in, or resistant to acquiring the skills valued by the majority, it is necessary that either the value system of the society be changed, or the poor child learn these values and skills. The dominant belief among most parents and educators is that the latter alternative is more desirable. Although we often talk of lower vs. middle class children, a psychological, rather than an economic, definition of class is intended. The economic and sociological definition of class is based on three correlated characteristics - education, income, and vocation. From a psychological point of view, however, a critical attribute of class is a feeling of exploitation by another class, coupled ^{with} / a sense of futility about effecting any change in one's life situation. The essential dimension of the concept "deprived" is the feeling of impotence to alter one's life or the future of one's children.

Although genetic factors may contribute to individual differences in a child's academic attainments, existing evidence is not inconsistent with the statement that the vast majority of school failures by children from deprived environments are primarily a function of experience. The validity of this conclusion rests on a dichotomy of competence into two basic classes: normative tasks, like walking, talking, reading and writing, which all members of the species are capable of attaining; in contrast to exceptional talent at music, mathematics, or spatial reasoning. Genetic factors may play a role in influencing unusual degrees of competence, but are less likely to control differences in quality of functioning that are natural to the species. Dogs are bred for length of leg, and the range in this anatomical trait is enormous. As a result, some dogs attain running speeds that others can never attain. However, all dogs, from dachshund to greyhound, can run. That ability is natural to the species. Analogously, it is argued that the ability to understand language, to speak in coherent sentences, to manipulate numbers, to think symbolically, and to read are part of man's inheritance. The basic tasks posed by the American schools, therefore, are probably not beyond the capacity of any child with an intact nervous system.

If we accept this assumption, there are two alternative action programs that might be implemented to reduce the high proportion of poor children with academic difficulties.

The first we have already rejected. We could change the criteria of adaptation in the wider society, or allow each group in the society to develop its own criteria. One can argue that mastery of reading or writing should not be necessary for leadership, power or economic survival. Although this is a possible alternative, it is not likely to be adopted. A second alternative is to make psychological changes in the ecology of the lower class child in order to increase the probability that he will be more successful in attaining normative skills. To effect this goal we can change the school, change the environment in the pre-school years, or go even further, and change the caretaker's relationship to the infant. Of course, simultaneous changes in all three systems are possible.

Changing the nature of the school may not be the most efficient way to gain the desired goal. Important aspects of the child's motivation and cognitive skills are established before he enters the first grade. The differences in language and number competence between lower and middle class children are significant by the time the child is 4 years old, and are awesome by the time he is in the third grade. This is not to say that a complete overhaul of the academic system would not be beneficial. Reducing classroom size so that each teacher has ten rather than thirty pupils should make a difference. Individual instruction would be increased and these conditions might allow the school to effect highly desirable

PS 003280

changes. This alternative should certainly be pursued. However, the lack of funds for such a change in the educational system lends a note of caution to this plan.

Alternatively one could concentrate on the pre-school years, 2-1/2 to 5. Although the headstart program has had minimal documented success, it never was an adequate test of the potential power of intervention during these years. The President and the administration, as many of you know, are entertaining the notion of instituting nationwide day care centers. If these are implemented in a creative way we might influence the child in a desirable fashion. However, it must be appreciated that we do not have adequate theory or knowledge to decide on the best set of tutorial procedures to be used in day care centers for pre-school youngsters. This issue should have the highest priority. A final strategy, not exclusive of the first two, is to change the mother's relationship with her infant. The idea for this suggestion rests on the assumption that a child's experiences with his adult caretaker during the first 24 months of life are major determinants of the quality of his motivation, expectancy of success, and cognitive abilities during the school years. In a moment we shall consider data in support of this position.

Many poor parents with young infants do not have clear understanding of how the child develops and do not have sufficient confidence that they can mold the infant

in a way to match their ideal for him. The mother may know what kind of a ten year old she wants, but she is not certain what she should do to have a serious effect on the growth of the infant. She may hold fatalistic attitudes toward the young child, assuming that the power to sculpt him lies within his genetic potential and chance experiences in the environment over which she has no control. Consequently she does not interact with him as often, as long, or as consistently as the middle class mother. If we could increase the mother's sense of control over her infant's growth and persuade her of the value of language, motivation, and expectancy of success, she might begin to believe that her efforts with the infant could facilitate fulfillment of her ideals. It is likely that success in this venture would have salutary changes on the child.

There are seven major kinds of differences between poor and privileged children that emerge during the opening years of life which preview differences seen a half-decade later.

The first category of difference includes comprehension and expression of language. The poor child is less able to understand complex sentences and speaks in simpler and shorter phrases. This difference may be the partial result of less frequent language interchange between mother and young child. Poor mothers engage in shorter periods of face-to-face talking with their infants than

middle class mothers and do not speak to their child with the variety, complexity and specificity that is typical of middle class mothers. Although television may help the lower class child acquire new vocabulary items it is not as effective as direct communication from an adult because the language flowing from the television set is not directly related to the child's desires nor tailored to his competence. Exposure to the language of others is most helpful when it is distinctive and comprehensible. The quality of language is much more critical than its quantity. This principle is seen in clear form in infancy when mothers are engaging in vocal play with their infants. The sequence typically begins with the baby babbling a string of meaningless cooing sounds. The mother talks back to the baby, the child responds, and the vocal ballet proceeds with each reacting to the other. Careful observation of the mother-infant interaction reveals that middle class mothers are more likely to engage in these reciprocal, face-to-face talking sequences in which the mother is not providing any distracting stimulation. The lower class mother often spends as much time talking in the vicinity of her infant, but she may be changing a diaper, or filling a bottle, and her speech is not salient to the child. It is probably not a coincidence that middle class children are more talkative during the second year of life and make language distinctions lower class children do not. It is believed that if the lower class mother were to increase

the amount of face-to-face talking, the child's language development might be facilitated.

A second factor involves the child's mental set to activate cognitive structures to solve problems or to understand discrepant events. A child's distribution of attention to the environment is governed, in large measure, by the quality of his cognitive structures and his tendency to activate these structures when he encounters an unusual event. Attention to an event leads spontaneously to the development of a relevant schema, where a schema is the mind's representation of the salient elements of that experience. A schema should be regarded as an abstract quality, much like gravity or temperature, that is a property of the mind. A schema allows the child to recognize an event. Children with a rich set of schemata for a class of events maintain attention to variations in the environment until they have explained them. Children differ in the tendency to activate existing schemata to explain discrepant events, as well as ⁱⁿ the richness of these schemata. One of the possible reasons for these differences is that the middle class mother unconsciously plays "theme and variations" with her infant. For example, she plays peek-a-boo, and as the child becomes bored with a particular variation, she shifts the locus of her face or changes her facial expression in order to keep her child laughing and attentive. This simple practice

repeated day after day, week after week, teaches the child that attention to unexpected derivatives of an unusual event may lead to renewed cognitive excitement. The child learns "to be prepared" for a moderate surprise. This mental preparation for the unusual is critical for new learning.

A third difference between infants involves attachment to an adult. Infants of most vertebrate species are born with a set of behaviors that they normally direct to the biological mother because she is the living creature most often present. Infant monkeys grasp and cling to the hairy undersurface of the mother; infant ducks follow the mother immediately after hatching. Human infants can neither follow nor grasp the mother, but they can visually scan, suck, smile, babble, and cling, and later, play reciprocally with an adult. Normally the infant directs these responses ^{toward} the biological mother. Continued display of these reactions toward the mother leads the infant to become attached to her, much as adults become attached to a frequently used object or place--a favorite pipe, chair, or summer cabin.

Attachment to an object is the predisposition to ^{responses} make/toward the object, and to search for that object when one feels distress, fear or anxiety. The attached child becomes receptive to adopting the values and prohibitions of the caretaker, for these adoptions allow

him to maintain a close attachment. If an infant becomes attached to the mother during the first year of life, he becomes anxious when she leaves. As he enters the second year and conquers his fear of being physically separated from her, fear of potential disapproval may replace the earlier fear of physical separation. The child is prone to inhibit behaviors the mother dislikes and initiate those she values. The stronger the attachment to the mother during the first year, the more motivated the child should be in gaining the approval of the mother and, subsequently, other adults. The typical middle class mother spends dramatically more time playing and talking with her infant and allowing her infant to grasp and cling to her than does the lower class mother. Consequently, the middle class infant becomes more closely attached to the mother and is more receptive to believing in and practicing her values. Support for this position can be seen in a simple laboratory experiment. Lower middle and upper middle class infants, 8 months old, were first allowed to play with toys in a room with their mother present. When the child was relatively happy the mother left the room. Upper middle class children were more likely to cry and become upset than lower class infants.

Many lower class mothers believe, unfortunately, that there is little they can do to enhance their relationship with their child. They feel more impotent about their

power to influence the child and they do not enter into long reciprocal periods of play. Middle class mothers, by contrast, play out the Pygmalion story, shaping and molding the infant to fit their ideal. This active sculpting leads the mother to engage in interactions that permit the child to develop an attachment to the parent. The zeal of the middle class first grader seems to derive, in part, from his motivation to establish a close relation to the teacher which, in turn, is a derivative of the early attachment to the mother.

A fourth difference between the two classes involves inhibition. The poor child shows less inhibition in times of conflict, and devotes less time to consideration of alternatives in a choice situation. In a word, the poor child tends to be impulsive. There are two possible causes for this difference. First, the mother of poverty is likely to be impulsive in her own actions and thus acts as a model for this type of behavior. Second, the poor child may not see or recognize the conflict inherent in a situation because he does not activate all the cognitive structures relevant to that problem. As a result, he behaves as though there is no choice to be made.

The middle class 4 year old seems to have a better sense of his potential effectiveness than the lower class child, who often sits withdrawn in the home, announcing his feeling of impotence as an agent who can cause things to happen. Consider a human infant

8 weeks old lying in a crib with an attractive mobile dangling two feet above his face. One infant can make the mobile turn by moving his head on his pillow. For a second infant the mobile moves at random, unrelated to his head movements. The first child shows more joy than the second. He babbles and smiles while the second is quiet. Instrumental control of the environment is a pleasant experience. The child who persists with difficult problems will more frequently enjoy the excitement that accompanies success and will develop an expectancy of success and a sense of his own effectiveness. Middle class two year olds enter into longer periods of sustained play with toys than lower class children and, hence, are more likely to successfully complete a product. Moreover, the middle class child often shows his newly built tower to a parent, expecting some positive response, ^{and} a sense of effectiveness may be influenced by parental actions toward the infant. The middle class mother who responds to her infant's smiling and cooing by talking and smiling back is laying a foundation for the belief that the child is a causal agent. The mother who comes to her child when he cries is clearly contributing to the child's faith in his ability to do something effective when he is in distress.

There are subtle accomplishments that the infant masters during the first year and a half of life that mothers can praise. The infant typically begins

to smile at faces and swipe at objects at 3 to 4 months, grab at distant objects with perfect accuracy at 5 months, sit up at 7 months, stand at 11 months, and walk at 14 months. Middle class mothers often react to these attainments with peals of praise and physical affection. The future investment in mastery of new skills is aided if the child expects pleasure from the conquest, and middle class children seem to have a stronger faith in success than children of poverty.

When the child reaches school age, ^{two} new differences emerge. A 7 year old child of poverty is not highly motivated to work at school defined tasks, partly because he feels less friendly toward the teacher and does not have a strong desire to obtain her praise, and partly because he does not admire her skills or temperamental qualities. Moreover he ^{continues to} expect to fail at intellectual problems and invests less effort in their mastery or, at the extreme, avoids them completely. Failure is less humiliating for he had not expected to succeed and was not convinced that intellectual skills were valuable. The combination of inadequate language resources, low motivation, and little faith in success leads inevitably to the retarded school progress so characteristic of the lower class child.

Some illustrations may aid appreciation of these theoretical ideas. If an adult presents a difficult puzzle to a 5 year old middle class child, he will work

at the task for a minute or two and, if he cannot solve it, push it toward the adult explaining, "I can't do it," "It's too hard," or "Let's do something else." Despite failure, he makes an active response. The poor child is likely to work only 10 seconds on the problem and less likely to take responsibility for terminating this painful experience. An examiner might wait three or four minutes of interminable silence before asking, "Can you do it?" The child quietly shakes his head from side to side. This passive posture in the face of a difficult problem is not uncommon among poor children. The middle class child is ^{also} more planful, as the following sequence illustrates. A 4 year old girl first looked at 12 different pictures and then was asked to remember the ones she saw without looking back at the book. Most 4 year olds can remember about four pictures under these circumstances. After recalling two pictures, she told the examiner, "I think I'll just tell you one or two more and then we'll do something else, o.k.?" She had realized she was only able to recall two more pictures and cleverly began to defend herself against the moment when she had nothing more to say.

There are seven major sets of differences between young children from families of differing economic privilege. Let us now turn to some data which lend support to some of these hypotheses. The major sources of data come from two studies in our laboratory. The

first is a longitudinal study of first born white infants seen at four ages in the first two years of life. The second is a cross-sectional study of ten month old, first born girls from both lower and middle class families.

A group of 140 boys and girls, white and first born, ranging from lower middle to upper middle class were seen in the laboratory at 4, 8, 13, and 27 months of age and observed at home in interaction with their mother at 4 and 27 months of age. In one set of episodes the children were shown a set of clay masks, like those illustrated in Fig. 1, at each of the four assessments. We have suggested in an earlier publication (Kagan, 1969) that after 11 to 12 months of age duration of fixation time to discrepant events is controlled primarily by the richness of hypotheses activated in the service of assimilation. Long fixations reflect persistent activation of a rich nest of hypotheses. Class differences in duration of fixation time to the masks were minimal at 4 and 8 months, but at both 13 and 27 months middle class children devoted a longer period of attention to these faces than lower class children. We assume that the middle class child had richer cognitive structures available and was more likely to activate these structures when exposed to a discrepant event, such as the scrambled face. Second, the increase in attentiveness to these faces between one and two years of age was more striking for the middle than for the lower class children, suggesting that the

rate of acquisition of cognitive structures surrounding faces was greater for the middle class child. When the stimuli were transformations of human forms (rather than faces) there was a significant correlation between social class and duration of attention at one year ($r=.36$ $p<.01$ for girls; $r=.21$ for boys).

Nonmorphemic vocalization during the first year of life reflects, among other things, the excitement generated by an interesting event. Excitement often accompanies or follows a successful assimilation of^a/discrepant experience and may index the degree to which the infant is involved in the dynamic process of understanding experience. Analysis of vocalization patterns to the faces and forms presented to the longitudinal sample revealed a larger increase in vocalization across the period eight to thirteen months for middle than for lower middle class girls. Lower middle class girls showed no change in vocalization across this five month period; upper middle class girls displayed a fifty percent increase ($p<.01$ for class difference). At 27 months of age the middle class children, especially the girls, had higher vocabulary scores^{and}/showed more spontaneous verbalization.

As indicated above, the children saw clay faces at 4, 8, 13, and 27 months. At 8 months of age significantly more upper middle than lower middle class infants showed fearful crying to the unrealistic masks. We interpret this finding to mean that the middle class infants had a stronger need to assimilate the discrepant

mask. They noted the disarranged face and tried to assimilate it to their schema for a human face. Those infants who could not accomplish this assimilation become anxious. Anxiety occurs when the child is alerted by a discrepant event, attempts to assimilate it, but is unable to do so. The lower class child, it is suggested, noted the discrepancy but was less likely to attempt the assimilation. Thus the tension born of the initial alerting dissipated and anxiety did not occur. The middle class child tried, but was unable to assimilate the scrambled face and, as a result, became anxious and cried. When the child's cognitive structures are mature enough to permit interpretation of discrepant events, fear does not appear; for no child cried when these same faces were shown to them at 27 months.

These class differences are supported by a more detailed cross sectional study of 60-10 month old white infants, first born, living in the Boston-Cambridge area. Thirty of the children were middle class; thirty, lower class. Middle class was defined as: either one or both parents^{had} graduated from college and the father was at a professional job. Working class was defined as: either one or both parents had dropped out of high school and neither had attended college, or the father was working at a semi-skilled or unskilled job. Observations in the home were made by Steven Tulkin who supervised the study as part of his doctoral dissertation. The observer made two separate visits to the home, and observational time was

about 2 hours for each visit. The observer had a list of a priori categories for the mother and child behaviors which were coded once every five seconds. The primary observer taught the coding system to another female and then both visited the homes of ten infants. Each of the ten homes in the reliability sample was observed for two hours and percentages of agreement were computed for each variable. The range was 70 to 100 per cent, and all median percentages were above 80 per cent.

Laboratory assessment

Within a few days of the home observation, the child and mother came to the laboratory. The staff who assessed the child had no knowledge of his behavior in the home and were not told about the social class of the family.

Episode 1. Meaningful speech. During the first episode a tape recording of meaningful and non-meaningful speech was played to the child. There were four stimuli in this episode: high meaningful sentences read with high or low inflection and nonsense words read with high or low inflection. These sentences were read by two different female voices with foreign accents (one Chinese and one Spanish). Half the subjects heard one voice, the other half the second voice.

Episode 2. Mother's voice. The second episode included tape recordings of the voice of the subject's mother and the voice of another subject's mother (hereafter called the stranger) reading a fairytale. Each

subject heard the voice of a different stranger from her own group, either middle class or lower class. As in the first set of auditory stimuli, the passages were 20 seconds long and separated by a 10 second interstimulus interval. All the children heard the passages in the same order.

Following two other episodes, not described here, mother and infant were taken to another part of the building to a carpeted room 9-1/2 x 11-1/2 feet square. Initially the child was given a two minute adaptation period designed to accustom him to the room. Three single toys were presented succeeding each other, each for 4 minutes. After the child had played with each toy for four minutes, two conflict trials were presented. Each conflict trial was 4 minutes in length and consisted of presenting one of the single toys simultaneous with a new toy the child had not seen previously. The two toys were presented equidistant from the child and about two feet apart.

Major differences in maternal behavior in the home.

The statistically significant differences between the lower and middle class mothers involved vocalization and duration of interactive episodes. The middle class mother spent more time in a face-to-face posture with the infant, more time talking to her infant, usually within two feet of the infant's face, and issued more distinctive vocalization to

the infant. A distinctive vocalization was coded when the mother was talking to her infant in a face-to-face position but was not providing any other sensory input, either visual or tactile. This last result replicates a similar class difference observed in mothers of 4 month old infants.

The middle class mothers were more likely to entertain their children with objects, to encourage walking, and to reward them for mastery. However, there were no class differences for kissing, total holding of the infant, tickling and bouncing of the infant, nonverbal interaction, or verbal prohibitions. The higher rate of vocalization among middle class mothers held not only for vocalizations that were reactions to the infant's babbling, but also for spontaneously initiated verbalizations toward the infant.

Infant behavior in the laboratory

Episode 1. Meaningful versus nonmeaningful speech.

There were no class differences in absolute reactivity to each of the stimuli. However, when one compared the reaction to the most meaningful stimulus (high meaning-high inflection) with reactivity to the preceding stimulus (low meaning-high inflection) class differences emerged. Middle class, in contrast to lower class, infants quieted

more dramatically to high meaning-high inflection than to the preceding stimulus ($p < .05$), and were more likely to look at the stranger following termination of high meaning-high inflection ($p < .10$). Most infants looked at the stranger following termination of the first stimulus, but this interest gradually waned. When high meaning-high inflection occurred on the fourth trial the middle class infants increased their orientation to the stranger, while lower class subjects did not, suggesting either that the middle class infant was better able to differentiate meaningful from nonmeaningful speech, or was more likely to inquire about the source of the meaningful speech. We shall return to this possibility later.

Mother's Voice Versus Stranger's Voice. There were no significant class differences in the mean scores for each of the variables considered separately, but the second order differences differentiated the classes. Middle class infants quieted more to mother's voice than to stranger's voice, and, upon termination of the voice, vocalized more following mother than stranger. Comparisons between the classes were both significant ($p < .05$ for quieting and $p < .10$ for vocalizing following the passages). Further, middle class infants looked at the mother following termination of her voice and looked at the stranger following termination of the stranger's voice. Working class children gradually habituated orientation to mother over the first four stimuli, but showed increased looking at the stranger.

However, the "looking" was not related to the voice they had just heard. Moreover, the middle class infants who looked more at their mother following the termination of the mother's voice had quieted more while listening to the mother's voice ($r=.32$, $p<.10$). This class difference may mean either that the lower class girls did not recognize the difference between the two voices or they did not care to inquire about the sources of the voices.

Our preferred interpretation is that all the infants were alerted by the acoustic differences between the two voices. The middle class infant wanted to resolve the discrepancy and to determine, if possible, the source of the voices. The lower class children did not have this mental set.

Play behavior. The play session revealed no class differences for mobility, proximity to mother, or duration of play with the toys. There was, however, a difference on the conflict trials. Middle class subjects showed more vacillation before they made their final choice of toy. The middle class subjects shifted their gaze about 2.2 times, in contrast to 1.4 for the lower class subjects. We interpret this difference to reflect a tendency to retrieve past experience in the service of resolving discrepancy. An unusual event tends to provoke an infant to attempt assimilation in order to reach cognitive equilibrium. The pairing of a novel and familiar toy is an "odd event," but children differ in their need to assimilate this

discrepancy and, therefore, in the disposition to retrieve the relevant cognitive structures that might aid assimilation. This interpretation resembles the one used to explain the differences between middle and lower class infants on the two auditory episodes. We recognize the conjectural nature of this interpretation, but note the provocative implication that a primary difference between middle and lower class children may rest in their desire to understand discrepant experience.

These data, although provocative, are still too thin a base to rationalize the theoretical ideas suggested earlier. However, these observations are consistent with those ideas. Although we are arguing for changes in the mother-infant relationship, these changes may only help the child's growth during the first two to two and a half years. They will not have a continuing beneficial effect if no other changes occur in the child's ecology as he enters the preschool years. There must be a concerted effort on the part of social scientists, urban planners and politicians to change the conditions under which poor families live. The communities' belief as to what arrangements will help them is critical. Even in psychotherapy we know that the patient does not improve if he does not believe the doctor's diagnoses and has ^{no} faith in his suggestions for cure. A sense of control over one's future and a stake in the next day are likely to develop if the parent believes that a specific set of changes in daily practices is reasonable

and the parent knows that he or she has the option to choose the procedures. It is more important for a parent to believe that a particular alteration in her practices or life space will help, regardless of the theoretical validity of the change, than to have a set of interventions in which she has no faith imposed upon her. An imposed procedure that does not engage a commitment in its effectiveness is not likely to do much good. Each community must be allowed to participate in the arrangements for its living. Man is neither evil nor insane enough to invent completely toxic conditions for the care of children. The poor mother is deeply concerned about the welfare of her child. She must be helped to feel that she can implement her concern through exposure to caretaking practices that make sense to her as well as the psychologist.

REFERENCES

Kagan, J. On the Meaning of Behavior: Illustrations from the Infant. Child Development, 1969.

FOOTNOTES

The research was supported in part by grants HD 4299 from NICHD, USPHS and the Carnegie Corporation of New York. This chapter is an expanded version of an address presented at a meeting of AAAS, December 28, 1969.

FIGURE CAPTIONS

Figure 1: Clay masks shown to infants.

Fig 1

